CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 88-030
NPDES NO. CA0038547

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

DELTA DIABLO SANITATION DISTRICT
ANTIOCH, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter the Board) finds that:

1. Delta Diablo Sanitation District, hereinafter called the discharger, by application dated September 1, 1987, has applied for renewal of waste discharge requirements under the National Pollutant Discharge Elimination System.

2. The discharger presently discharges an average dry weather flow of 8.8 mgd from its secondary treatment plant which had a design capacity of 9.5 mgd. Treatment consists of screening, grit removal, primary clarification, trickling filters, activated sludge, secondary clarification, disinfection and dechlorination. The treated effluent is discharged via a deepwater outfall into New York Slough, a water of the United States (Latitude 38 deg., 01 min., 40 sec.; Longitude 121 deg., 50 min., 14 sec.).

3. The sludge is thickened by dissolved air flotation thickeners, anaerobically digested, and dewatered by centrifuge before it is disposed of at a permitted landfill site.

4. The discharger completed a wastewater master plan in 1985 and is currently updating the master plan to determine the projected wastewater facilities needs through ultimate development of the service area. The service area includes the Cities of Antioch and Pittsburg and the unincorporated areas of West Pittsburg which includes Shore Acres.

5. An expansion project to increase the design capacity to 12.6 mgd was completed in 1985. A treatment plant capacity study was conducted in 1986 to determine the actual treatment plant capacity and to identify the optimal operation mode for the secondary system. The study indicated that addition of sulfonators would eliminate the capacity restriction and thereby increase the capacity to 13.5 mgd. The sulfonators have been in operation since September 1987.

6. The discharge is presently governed by Waste Discharge Requirements in Order No. 83-15 which allow discharge into New York Slough.

7. The discharger implemented and is maintaining an EPA approved pretreatment program in accordance with the Regional Board Order No. 84-60.

8. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986, and the State Water Resources Control Board approved it on May 21, 1987. The Basin Plan contains water quality objectives for New York Slough and contiguous

waters.

9. The beneficial uses of New York Slough and the adjacent water bodies are:

   a. Municipal, Agricultural and Industrial Service Supply
   b. Contact and Non-contact Water Recreation
   c. Wildlife Habitat
   d. Preservation of Rare and Endangered Species
   e. Fish Migration and Spawning
   f. Navigation
   g. Commercial and Sport Fishing
   h. Estuarine Habitat

10. The Environmental Protection Agency requires an antidegradation analysis when an increase in wastewater discharge is proposed. An antidegradation policy was adopted by State Water Resources Control Board in the "Statement of Policy with Respect to Maintaining High Quality of Waters in California". It provides conditions under which a change in water quality is allowable. A change must:

    1) Be consistent with maximum benefit to the people of the State,

    2) Not unreasonally affect present and anticipated beneficial uses of water, and

    3) Not result in water quality less than that prescribed in water quality control plans or policies.

    The capacity increase is in conformance with the antidegradation policy given that the discharger will continue to comply with the water quality based Basin Plan limits.

11. An Operation and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual should be kept updated to reflect significant changes in treatment facilities.

12. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 commencing with Section 21100 of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

13. The discharger and interested agencies and persons have been notified of the Board's intent to amend requirements for the existing discharge and have been provided with the opportunity for a public hearing and opportunity to submit their written views and recommendations.

14. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Delta Diablo Sanitation District in order to meet the provisions contained in Division 7 of the California Water Code and

regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Discharge at any point at which the wastewater does not receive an initial dilution of at least 30:1 is prohibited.

2. Bypass or overflow of wastewater to waters of the State either at the treatment plant or from any of the collection system and pump stations tributary to the treatment plant is prohibited.

3. The average dry weather flow shall not exceed 13.5 mgd. Average dry weather flow shall be determined over three consecutive dry months each year.

4. There shall be at least two feet of freeboard in any storage or retention pond containing wastewater.

B. Effluent Limitations

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

Constituents	Units	Monthly Average	Weekly Average	Maximum Daily	Instantaneous Maximum
a. Settleable Matter	ml/l-hr	0.1	---	---	0.2
b. BOD_5	mg/l	30	45	60	---
c. Total Suspended Solids	mg/l	30	45	60	---
d. Oil & Grease	mg/l	10	---	20	---
e. Total Chlorine Residual (1)	mg/l	---	---	---	0.0

(1) Requirement defined as below the limit of detection in standard test methods.

2. The arithmetic mean of the biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).

3. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.

4. The survival of test organisms acceptable to the Board in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 50% survival based on the ten most recent consecutive samples.

5. Representative samples of the effluent shall not exceed the following

limits in µg/l:[1]

Constituents	Daily Maximum
a. Arsenic	200
b. Cadmium	30
c. Chromium(VI)[2]	110
d. Copper	200
e. Lead	56
f. Mercury	1
g. Nickel	71
h. Silver	23
i. Zinc	580
j. Cyanide	25
k. Phenols	500
l. PAHs[3]	150

(1) These limits are intended to be achieved through secondary treatment and pretreatment.

(2) Discharger may at its option meet this limit as total chromium.

(3) As identified by EPA Method 610. If a discharge exceeds the limit of polynuclear aromatic hydrocarbons, concentration of individual constituents should be reported.

6. The running median value for the MPN of total coliform in any five (5) consecutive effluent samples shall not exceed 23 coliform organisms per 100 milliliters. Any single sample shall not exceed 500 MPN/100 ml.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulated matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved sulfide	0.1 mg/l maximum
c.	pH	Variation from natural ambient pH by more than 0.5 pH units.
d.	Un-ionized ammonia	0.025 mg/l as N Annual Median 0.16 mg/l as N Maximum

3. The discharger shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 83-15. Order No. 83-15 is hereby rescinded.

2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply:

   Mass Emission Limit in lbs/day = Concentration Limit in mg/l x 8.34 x Actual Flow in mgd averaged over the time interval to which the limit applies.

3. The discharger shall comply with all sections of this Order immediately upon adoption.

4. The discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year.

5. The discharger shall review and update by December 31, annually, its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

6. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended.

7. The discharger shall maintain its pretreatment program in accordance with the Regional Board Order No. 84-60 and all amendments that may be made to the Order.

8. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December, 1986.

9. This Order expires March 16, 1993. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

10. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on March 16, 1988.

ROGER B. JAMES
Executive Officer

Attachments:

Standard Provisions & Reporting
Requirements, December 1986
Self-Monitoring Program
Resolution 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

DELTA DIABLO SANITATION DISTRICT

CONTRA COSTA COUNTY

NPDES NO. CA0038547

ORDER NO. 88-030

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

A. INFLUENT AND INTAKE

Station	Description
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

Station	Description
E-001-D	At any point in the outfall at which all waste tributary to that outfall is present and adequate contact with the disinfectant is assured.
E-001-S	At any point in the outfall at which all waste has been disinfected and dechlorinated.

C. RECEIVING WATERS

Station	Description
C-1	At a point in New York Slough directly above the cernter of the diffuser.
C-2-A C-2-B	At points in New York Slough located 100 feet upstream and downstream, respectively of the center of the diffuser.
C-R	At a point in New York Slough located 1,000 feet upstream from the diffuser.

D. LAND OBSERVATIONS

Station	Description
P-1 thru P-'n'	Located along the periphery of the waste treatment or disposal facilities, at equidistant intervals, not to exceed 200 feet. (A sketch

showing the locations of these stations will accompany each report.)

E. OVERFLOWS AND BYPASSES

Station	Description
O-1 thru O-'n'	Bypass or overflows from manholes, pump stations, collection system.

NOTE: Initial SMP report to include map and description of each known bypass or overflow location.

II. REPORTING REQUIREMENTS

The self-monitoring report shall be submitted monthly and received no later than the fifteenth of the following month for the month reported. Any overflow, bypass or significant noncompliance that may endanger health or the environment shall be reported according to G.1 and G.2 of Part A.

III. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given as Table I.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 88-030.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

Roger B. James
Executive Officer

Effective Date MARCH 21, 1988

Attachment:

Table I and Legend for Table

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS(1,2,3)

Sampling Station	A-001		E-001-D		E-001-S		C	O	P				
TYPE OF SAMPLE	C-24	Cont	G	C-24	G	C-24	G	O	O				
Flow Rate (mgd)		D											
BOD, 5-day, 20°C, or COD (mg/l & kg/day)	5/W			5/W									
Chlorine Residual & Dosage (mg/l & kg/day)					Cont								
Settleable Matter (ml/l-hr. & cu. ft./day)			D										
Total Suspended Matter (mg/l & kg/day)	5/W			5/W									
Oil and Grease (mg/l & kg/day)				W									
Coliform (Total or Fecal) (MPN/100 ml) per req't			3/W										
Fish Tox'y 96-hr. % Surv'l in undiluted waste					M(4)								
Ammonia Nitrogen (mg/l & kg/day)													
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)													
pH (units)					D		M						
Dissolved Oxygen (mg/l and % Saturation)							M						
Temperature (°C)							M						
Apparent Color Visual Observation							M						
Secchi Disc (inches)				-									
Sulfides (if DO<5.0 mg/l) Total & Dissolved (mg/l)							M						
Arsenic (mg/l & kg/day)				Q									
Cadmium (mg/l & kg/day)				Q									
Chromium, Total (mg/l & kg/day)				Q									
Copper (mg/l & kg/day)				Q									
Cyanide (mg/l & kg/day)				Q									
Silver (mg/l & kg/day)				Q									
Lead (mg/l & kg/day)				Q									

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-001		E-001-D		E-001-S		C	O	P				
TYPE OF SAMPLE	C-24	Cont	G	C-24	G	C-24	G	O	O				
Mercury (mg/l & kg/day)				Q									
Nickel (mg/l & kg/day)				Q									
Zinc (mg/l & kg/day)				Q									
PHENOLIC COMPOUNDS (mg/l & kg/day)				2/Y									
All Applicable Standard Observations							M	E	M				
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)													
PAH's (mg/l)				2/Y									
Un-ionized Ammonia (mg/l)							M						

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

FOOTNOTES

(1) If any sample is in violation of limits, sampling frequency shall be increased for the parameter until compliance is demonstrated in two successive samples.

(2) During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

- Composite sample on a hourly basis for BOD, Total Suspended Solids during bypassing.

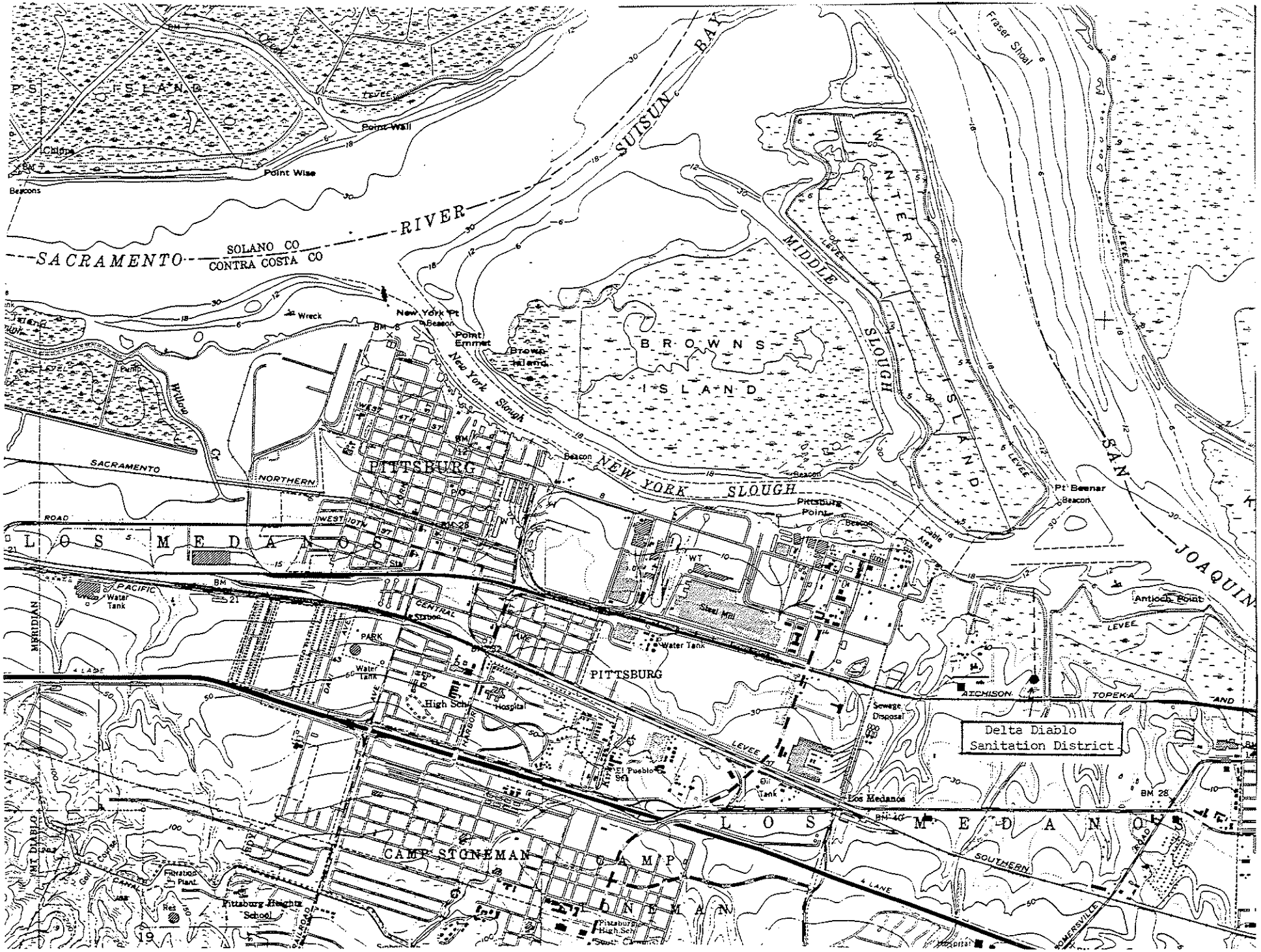
- Grab samples on a daily basis for Total Coliform, Settleable Matter and Oil and Grease.

- Continuous monitoring of flow.

- Continuous or every two hour monitoring of chlorine residual.

(3) Oil and Grease sampling shall consist of 3 grab samples taken at equal intervals during the sampling day, with each grab being collected in a glass container. The grab samples shall be mixed in proportion to the instantaneous flow rates occurring at the time of each grab sample, within an accuracy of plus or minus 5%. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent rinsings as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.

(4) Flow-through bioassays shall be performed using two test species in parallel tests. One shall be three-spined stickleback, the other shall be either rainbow trout or fathead minnow.


SUISUN BAY
SACRAMENTO RIVER
SOLANO CO
CONTRA COSTA CO
Point Wilse
Point Wall
Beacons
Fraser Shoal
WINTER ISLAND
MIDDLE SLOUGH
BROWNS ISLAND
Wreck
New York Pt
Beacon
Point Emmet
Brown Island
New York Slough
Willow Pt
Willow Cr
SACRAMENTO NORTHERN
PITTSBURG
NEW YORK SLOUGH
Beacon
Pittsburg Point
Cable Area
Pt Beenar
Beacon
SAN JOAQUIN
LOS MEDANOS
WEST 10TH ROAD
PACIFIC
Water Tank
CENTRAL
Station
PARK
Water Tank
Steel Mill
Water Tank
PITTSBURG
Antioch Point
LEVEE
ATCHISON TOPEKA AND
MERIDIAN
4 LANE
OAK
HARBOR
High Sch
Hospital
Sewage Disposal
Delta Diablo
Sanitation District
LEVEE
El Pueblo
Oil Tank
Los Medanos
BM 28
LOS MEDANOS
SOUTHERN
4 LANE
CAMP STONEMAN
CAMP STONEMAN
MT DIABLO
Golf Course
CANAL
Filtration Plant
Res
Pittsburg Heights School
RAILROAD
Pittsburg High Sch
Sports Ground
HOMESTEAD
Hospital
19